HOUSE COMMITTEE ON SCIENCE

SUMMARY OF H.R. 610,
THE ENERGY, RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION ACT OF 2005

The bill is based on the Science Committee's contributions to the H.R. 6 conference report from the 108th Congress. The sections of H.R. 6 on which the Science Committee worked with other Committees (the hydrogen title, clean coal, some vehicle provisions, ultra-deep drilling funding) are included in H.R. 610 without changes, other than dates and minor technical changes. H.R. 610 authorizes appropriations of just under $44 billion (B) over five years for energy research, development, and demonstration. (See chart.)

Title I – Science:

- Authorizes $23.7 billion for the Office of Science for fiscal years 2006-2010, including $1.8 B for fusion, $1.6 B for scientific computing research, and $100 M in fiscal year 2006 for systems biology.
- Authorizes and sets a schedule and costs for the construction and operation of the Rare Isotope Accelerator, for which the Department of Energy (DOE) is in the process of selecting a site. (new language)
- Authorize and limits U.S. participation in ITER, the international fusion project. (same language as H.R. 6)
- Authorizes basic research related to the President's hydrogen initiative. (new language)
- Establishes a scholarship for service program. (H.R. 6 language)

Title II – Research Administration:

- Requires cost sharing (with a Secretarial waiver permitted) of 20 percent for basic and applied research projects, and 50 percent for demonstration and commercial application projects. (H.R. 6 language)
- Requires open competition for all DOE awards, but allows (with Congressional notification) DOE to hold competitions only within a class of institutions (i.e., just National Laboratories, or just industry, or just universities). (new language)
- Prohibits the designations of new National Laboratories. (new language)
- Requires plans for new user facilities, for existing DOE facilities, and for better coordinating DOE programs.

Title III – Energy Efficiency:

- Authorizes $4.0 billion for fiscal years 2006-2010 including $1.36 B for vehicle efficiency R&D, $830 M for energy efficiency R&D for buildings, and $715 M for industrial energy efficiency R&D. It also authorizes $1.25 billion for R&D related to distributed energy systems, electricity transmission and distribution systems, and energy assurance.
- Authorizes a new program to provide grants to promote the design of energy efficient buildings. (new language)

- Authorizes a program to make use of batteries from electric vehicles. (H.R.. 6 language)

Title IV – Renewable Energy:

- Authorizes $3.91 billion for fiscal years 2006-2010 including $990 M for solar energy R&D, $1.51 B for bioenergy R&D, including $750 M for a biorefinery demonstration program, $310 M for wind energy R&D, and $150 M for geothermal energy R&D, and $800 M for a photovoltaic demonstration grant program.
- Authorizes a new program of grants to states, which would use the money to award competitive grants for the demonstration of solar energy technology. (new language)

Title V – Nuclear Energy Programs:

- Authorizes $2.25 billion for fiscal years 2006-2010 for nuclear science and engineering, including R&D on advanced nuclear fuel recycling, support for nuclear science and engineering at universities, and support for improved nuclear research infrastructure and facilities. It also authorizes $1.25 B for research, development, design and construction of a next generation demonstration nuclear power plant.
- Requires plans for DOE nuclear energy facilities and for the new Idaho National Laboratory. (new language)
- Authorizes and sets guidelines for the Next Generation Nuclear Plant program. (modified H.R. 6 language)

Title VI – Fossil Energy:

- Authorizes $3.1 billion for fiscal years 2006-2010 for R&D on advanced coal, oil and gas technologies, transportation fuels and fuel cells. It also includes a provision that would mandate $750 million of Federal oil and gas royalty funds and authorize $250 million in appropriations to be used for ultra-deepwater and unconventional oil and gas research.
- Authorizes a new program of research on ultra-deep drilling technology with mandatory funding. (H.R. 6 language)

Title VII – Hydrogen:

- Authorizes $2.15 billion for fiscal years 2006-2010 for research, development and demonstration required under the President's Hydrogen Initiative, including R&D on fuel cell vehicles and hydrogen production. Requires additional planning for the Initiative. (H.R. 6 language)

Title VIII – Advanced Vehicles:

- Establishes a $200 M demonstration program for alternative fueled and advanced vehicles and supporting infrastructure. It also establishes a $190 M demonstration program of alternative fuel, clean diesel and fuel cell school buses, of which $55 M is for a clean diesel school bus retrofit demonstration program. (H.R. 6 language)

Title IX – Clean Coal Power Initiative:

- Authorizes $200 million per year for fiscal years 2006-2012 for R&D on advanced clean coal technology, including clean coal centers of excellence. (H.R. 6 language)

Title X – Improved Coordination and Management of Civilian Science and Technology Programs:

- Designates the head of the Office of Science as an Assistant Secretary and creates an additional assistant secretary position to enable improved management of nuclear energy issues. (modified H.R. 6 language)